

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

REC'D 31 MAY 2005

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To:

see form PCT/ISA/220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/GB2005/000836

International filing date (day/month/year)  
04.03.2005

Priority date (day/month/year)  
05.03.2004

International Patent Classification (IPC) or both national classification and IPC  
H04L12/56

Applicant  
XYRATEX TECHNOLOGY LIMITED

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

### 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/GB2005/000836

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/GB2005/000836

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**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	8-11,15-28,45-47
	No: Claims	1-7,12-14,29-44
Inventive step (IS)	Yes: Claims	
	No: Claims	1-47
Industrial applicability (IA)	Yes: Claims	1-47
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

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**Box No. VIII Certain observations on the International application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1 Reference is made to the following documents:

D1 : EP 0 717 532 A (IBM) 19 June 1996 (1996-06-19)

D2 : SCHROEDER M D ET AL: "AUTONET: A HIGH-SPEED, SELF-  
CONFIGURING LOCAL AREA NETWORK USING POINT-TO-POINT LINKS"  
IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, IEEE INC.  
NEW YORK, US, vol. 9, no. 8, 1 October 1991 (1991-10-01), pages 1318-1335,  
XP000267583 ISSN: 0733-8716

D3 : Y. TURNER ET AL.: "An approach for congestion control in Infiniband"[Online]  
14 May 2002 (2002-05-14), XP002314413 Retrieved from the Internet:  
URL:www.hpl.hp.com/techrepor.pdf>; [retrieved on 2005-01-20]

2 INDEPENDENT CLAIM 1

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

2.1 Document D1 discloses (the references in parentheses applying to this document):

A method of congestion management within a switch or network of connected switches wherein the or each of the switches has a plurality of ingress ports and a plurality of egress ports(abstract), the method comprising :

when congestion is detected at a first ingress or egress port, sending a message to an upstream port connected to the first ingress or egress port indicating that congestion has occurred at a particular port(col. 5, lines 40-47) and requesting storage at the upstream port of data packets destined for that port(claims 4,5); and

in dependence of the amount of data packets destined for the congested port stored

at said upstream port, sending from the upstream port to a further upstream port a message informing said further upstream port of the congestion at the congested port, said further upstream port storing at said further upstream port data packets destined for the congested port(col.6, lines 47-54).

- 2.2 Furthermore, document D2 discloses (the references in parentheses applying to this document):

A method of congestion management within a switch or network of connected switches wherein the or each of the switches has a plurality of ingress ports and a plurality of egress ports(figures 2,4), the method comprising:

when congestion is detected at a first ingress or egress port, sending a message to an upstream port connected to the first ingress or egress port indicating that congestion has occurred at a particular port and requesting storage at the upstream port of data packets destined for that port(page 1325, right-hand col. lines 18-34);  
and

in dependence of the amount of data packets destined for the congested port stored at said upstream port, sending from the upstream port to a further upstream port a message informing said further upstream port of the congestion at the congested port, said further upstream port storing at said further upstream port data packets destined for the congested port(page 1325, right-hand col., lines 35-47).

**Therefore, the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.**

It should be noted that even if the applicant were to interpret claim 1 in such a manner as to enable him to allege that their subject matter were formally novel, based on non-substantial differences between the features of these claims and those disclosed in documents D1-D2, the subject matter of claim 1 would still not involve an inventive step(Articles 33(1) and 33(3) PCT). Especially as these documents address the same technical problem and disclose the same type of solution as claimed by the applicant.

**3 INDEPENDENT CLAIMS 19,26,29,36 AND 39**

Independent claims 19,26,29,36 and 39 are switch, protocol and endstation formulations of the method of claim 1. As a consequence the same reasoning applies as for claim 1. Therefore the subject-matter of claims 19,26,29,36 and 39 is not new in the sense of Article 33(2) PCT

**4 DEPENDENT CLAIMS 2-18,27,28,30-35,37,38,40-47**

Dependent claims 2-18,27,28,30-35,37,38,40-47 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT). Details can be found in the cited sections of D1-D3 in the search report.

**Re Item VIII**

**Certain observations on the international application**

Although claims 19 and 36 have been drafted as separate independent "signalling protocol" claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

The same reasoning applies, mutatis mutandis, to independent "switch" claims 26 and 29.